Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application:

1.   (Currently Amended) A method of updating <u>non-essential program code contained within a</u> ~~non-essential~~ region ~~stored~~ in a non-volatile memory device in a computer system, the method comprising:

building an image file, the image file comprising ~~an essential~~ <u>a</u> ~~region for storing essential~~ program code <u>that is</u> required for booting the computer system and <u>at least a</u> ~~non-essential~~ <u>further</u> region for storing <u>non-essential</u> ~~optional~~ program code <u>that is optional and not required</u> for <u>booting</u> the computer system<u>, wherein the non-essential program code is not linked to any of the essential program code</u>;

copying the image file to the non-volatile memory device in the computer system; and

following copying the image file to the non-volatile memory device in the computer system, updating only the ~~non-essential~~ <u>further</u> region <u>of the image file as</u> stored in the non-volatile memory device to update the ~~optional~~ <u>non-essential</u> program code for the computer system<u>,</u> and not updating the ~~essential~~ region <u>of the image file as</u> stored in the non-volatile memory device.

2.   (Currently Amended) The method of claim 1, wherein the ~~non-essential~~ <u>further</u> region in the image file comprises one or more ~~non-essential~~ blocks <u>of non-essential program code</u>.

3.   (Currently Amended) The method of claim 2, further comprising reserving at least one of a plurality of sectors in the non-volatile memory device for storing exclusively the one or more ~~non-essential~~ blocks <u>of non-essential program code</u>.

4.   (Currently Amended) The method of claim 3, wherein updating the ~~non-essential~~ <u>further</u> region in the non-volatile memory device comprises mapping the one or more ~~non-essential~~ blocks <u>of non-essential program code</u> to the at least one reserved sector in the non-volatile memory device.

5. (Currently Amended) The method of claim 3, wherein updating the ~~non-essential~~further region in the non-volatile memory device comprises mapping the one or more ~~non-essential~~ blocks of non-essential program code to a portion of the at least one reserved sector in the non-volatile memory device.

6. (Previously Presented)   The method of claim 5, wherein the portion of the at least one reserved sector in the non-volatile memory device is a paragraph multiple.

7. (Currently Amended) The method of claim 1, wherein the program code in the ~~essential~~ region comprises a power-on self test (POST) routine.

8. (Currently Amended) The method of claim 2, wherein one of the one or more ~~non-essential~~ blocks comprises a header and at least one module.

9. (Currently Amended) The method of claim 8, wherein the header is located at the beginning of the one of the one or more ~~non-essential~~ blocks.

10. (Currently Amended) The method of claim 8, wherein the header comprises a pointer to a first module in the one of the one or more ~~non-essential~~ blocks.

11. (Original)   The method of claim 8, wherein the at least one module comprises a module header and module data.

12. (Currently Amended) The method of claim 11, wherein the module header comprises a pointer to a next module in the at least one ~~non-essential~~ block.

13. (Original)   The method of claim 11, wherein the module data comprises at least one of:

        graphics data;

        a language module; and

        diagnostic tools.

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14.   (Currently Amended) A computer system for updating non-essential ~~data~~ program code contained in a non-volatile memory device included within the system, comprising:

the non-volatile memory device for storing an image file, the image file comprising ~~an essential~~ a region for storing essential program code that is required for booting the computer system, and a ~~non-essential~~ further region for storing ~~optional~~ non-essential program code that is optional and not required for booting the computer system, wherein the non-essential program code is not linked to any of the essential program code;

a memory for storing a program containing code for updating the image file stored in ~~a~~ the non-volatile memory device; and

a processor, functionally coupled to the memory and associated with the non-volatile memory device, wherein the processor is responsive to computer-executable instructions contained in the program and operative to:

copy the image file to the non-volatile memory device; and

update only the ~~non-essential~~ further region of the image file as stored in the non-volatile memory device to update the non-essential ~~data~~ program code, and not update the ~~essential~~ region of the image file as stored in the non-volatile memory device.

15.   (Currently Amended) The computer system of claim 14, wherein the ~~non-essential~~ further region in the image file comprises at least one ~~non-essential~~ block of non-essential program code.

16.   (Currently Amended) The computer system of claim 15, wherein the non-volatile memory device comprises a plurality of sectors for storing the at least one ~~non-essential~~ block of non-essential program code.

17.   (Currently Amended) The computer system of claim 15, wherein the at least one ~~non-essential~~ block of non-essential program code comprises a header and at least one module.

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18. (Currently Amended) The computer system of claim 17, wherein the header is located at the beginning of the ~~non-essential~~ block of non-essential program code.

19. (Original) The computer system of claim 17, wherein the at least one module comprises a module header and module data.

20. (Original) The computer system of claim 19, wherein the module data comprises program code.

21. (Original) The computer system of claim 19, wherein the module data comprises at least one of:

  graphics data;

  a language module; and

  diagnostic tools.

22. (Currently Amended) The computer system of claim 14, wherein the ~~essential~~ region in the image file comprises critical program code.

23. (Original) The computer system of claim 22, wherein the critical program code comprises a power-on self test (POST) routine.

24.　(Currently Amended) A computer-readable storage medium having computer-executable instructions stored thereon that, when executed by a computer, cause the computer to:

build an image file for updating a BIOS installed within a computer system, ~~wherein the BIOS includes~~, the image file comprising ~~an essential~~ a region for storing essential program code that is required for booting the computer system, and comprising a ~~non-essential~~ further region for storing non-essential ~~optional~~ program code that is optional and not required for booting the computer system, wherein the image file includes an updated ~~non-essential~~further region, wherein the non-essential program code is not linked to any of the essential program code;

copy the ~~essential~~ region and the updated ~~non-essential~~further region to a non-volatile memory device provided by the computer system; and

after copying the ~~essential~~ region and the updated ~~non-essential~~further region to the non-volatile memory device, update only the ~~non-essential~~further region in the BIOS with the updated ~~non-essential~~further region in the non-volatile memory device while maintaining the ~~essential~~ region unchanged in the non-volatile memory device.

25.　(Currently Amended) The computer-readable storage medium of claim 24, wherein the ~~non-essential~~ further region in the image file comprises at least one ~~non-essential~~ block of non-essential program code.

26.　(Currently Amended) The computer-readable storage medium of claim 25, further comprising computer-executable instructions for causing the computer to reserve at least one of a plurality of sectors in the non-volatile memory device for storing the at least one ~~non-essential~~ block of non-essential program code.

27.　(Currently Amended) The computer-readable storage medium of claim 26, wherein updating only the further ~~non-essential~~ region in the non-volatile memory device comprises mapping the at least one ~~non-essential~~block of non-essential program code to the at least one reserved sector in the non-volatile memory device.

28.   (Currently Amended) The computer-readable storage medium of claim 26, wherein updating only the further ~~non-essential~~ region in the non-volatile memory device comprises mapping each ~~non-essential~~ block of non-essential program code to a portion of the at least one reserved sector in the non-volatile memory device.

29.   (Previously Presented)   The computer-readable storage medium of claim 28, wherein the portion of the at least one reserved sector in the non-volatile memory device is a paragraph multiple.

30.   (Currently Amended) The computer-readable storage medium of claim 24, wherein the program code in the ~~essential~~ region comprises a power-on self test (POST) routine.

31.   (Currently Amended) The computer-readable storage medium of claim 25, wherein the at least one ~~non-essential~~ block of non-essential program code comprises a header and at least one module.

32.   (Currently Amended) The computer-readable storage medium of claim 31, wherein the header is located at the beginning of the at least one ~~non-essential~~ block of non-essential program code.

33.   (Currently Amended) The computer-readable storage medium of claim 31, wherein the header comprises a pointer to a first module in the at least one ~~non-essential~~ block of non-essential program code.

34.   (Previously Presented)   The computer-readable storage medium of claim 31, wherein the at least one module comprises a module header and module data.

35.   (Currently Amended) The computer-readable storage medium of claim 34, wherein the module header comprises a pointer to a next module in the at least one ~~non-essential~~ block of non-essential program code.

36.   (Previously Presented)   The computer-readable storage medium of claim 34, wherein the module data comprises program code.

37.   (Previously Presented)   The computer-readable storage medium of claim 34, wherein the module data comprises at least one of:

> graphics data;
>
> a language module; and
>
> diagnostic tools.

38.   (Cancelled).

39.   (Cancelled).

40.   (Cancelled).

41.   (Cancelled).

42. (Previously Presented) A computer-readable storage medium having computer-executable instructions stored thereon that, when executed by a computer system, cause the computer system to:

search a non-essential region in a non-volatile memory device included within the computer system for at least one module, wherein the non-volatile memory device comprises a plurality of modules containing program code for the computer system;

if the at least one module is found in the non-essential region, then execute the program code in the at least one module, wherein the at least one module in the non-essential region contains an updated version of the program code for the computer system;

if the at least one module is not found in the non-essential region, then search an essential region in the non-volatile memory device for the at least one module, wherein the at least one module in the essential region contains a current version of the program code for the computer system; and

if the at least one module is found in the essential region, then execute the program code in the at least one module.

43. (Previously Presented) The computer-readable storage medium of claim 42, wherein the at least one module further comprises a module header, the module header comprising an identification of the program code contained in the at least one module.

44. (Previously Presented) The computer-readable storage medium of claim 42, wherein the updated version of the program code contained in the non-essential region comprises updated program code for a BIOS in the computer system.